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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/631,192

07/31/2003

Manish Vaishya

2002P13828US01;60427-607

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY LAW DEPARTMENT
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EXAMINER

SUTHERS, DOUGLAS JOHN

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

09/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/631,192

Applicant(s)

VAISHYA, MANISH

Examiner

Douglas Suthers

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-10,15,17-19,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-10,15,17-19,22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2615.
2. The examiner would like to note that the submitted claims should say "1-6. (CANCELLED)" not "1-7. (CANCELLED)".

Specification

3. The disclosure is objected to because of the following informalities: paragraph 30 refers to "spectral shaping path 116 and physical path 118" which should read "spectral shaping path 112 and physical path 114". Although the remarks say the specification has been amended, no such amendment is found in the file.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 7-10, 15, 17-19, and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukumizu (US 5267320).

6. Regarding claim 7, Fukumizu discloses a method of controlling an active noise control system, comprising:

defining a first gain (C_j) in a physical path and a second gain ($C_j(n)$) in a spectral shaping path;

normalizing the second gain (5, 6, 9) based on a system output value;

generating an actual response (3) using an ideal model (2) and the normalized second gain;

calculating a difference between an ideal response and the actual response to obtain an error signal ($e(n)$); and

adjusting the system model based on the error signal (from 4 to 5).

7. Regarding claim 8, Fukumizu discloses wherein the system output value is the actual response (actual error $e(n)$).

9. The method of claim 8, wherein the second gain is calculated by dividing an ideal gain by a value based on the actual response (equations 6 and 7).

10. Regarding claim 9, Fukumizu discloses wherein the ideal gain is equal to the first gain (C_j).

8. Regarding claim 15, Fukumizu discloses an active noise control system, comprising:

a sound generator (3) that outputs a generated sound based on an engine operating characteristic;

a physical path through which the generated sound travels (3 to 4), the physical path having a first gain (C_j);

a spectral shaping path (1 to 3) having an ideal model of the physical path (2) and a second gain ($C_j(n)$), wherein the generated sound is controlled by the ideal model and the second gain to generate an actual response;

a controller (4, 5) that calculates a difference between an ideal response of the active noise control system and the actual response to obtain an error signal ($e(n)$) and adjusts the system model based on the error signal.

9. Regarding claim 17, Fukumizu discloses further comprising a spectral shaping subsystem (5, 6, 9) that normalizes the second gain based on a system output value, wherein the actual response is generated using the ideal model and the normalized second gain.

10. Regarding claim 18, Fukumizu discloses wherein the system output value is the actual response (actual error $e(n)$).

11. Regarding claim 19, Fukumizu discloses wherein the second gain is calculated by dividing the first gain by a value based on the actual response (equations 6 and 7).

12. Regarding claim 22, Fukumizu discloses including the step of reducing the normalized second gain in response to an increase in power of the generated actual response beyond a desired limit (if power of antinoise generator is greater than the desired limit, the level needed to cancel the actual noise, the gain is reduced, column 4 lines 62-68).

13. Regarding claim 23, Fukumizu discloses wherein the controller reduces the second gain utilized to generate the actual response in response to an increase in power output of the sound generator beyond a desired power level (if power of antinoise generator is greater than the desired level, the level needed to cancel the actual noise, the gain is reduced, column 4 lines 62-68).

Response to Arguments

14. Applicant's arguments filed 07/05/07 have been fully considered but they are not persuasive.

15. As noted above, the applicant states in the remarks that an amendment to the specification has been filed, but no such amendment is found in the file.

16. Applicant argues that C_j and $C_j(n)$ are transfer functions and cannot read on the claims, however it is the examiners stance that the transfer functions define the gains.

17. Applicant argues generating the actual response does not use the ideal model and the normalized second gain, however generating the actual response clearly uses the ideal model (modeled by signal processor 2) and the normalized second gain (the signal used by processor 2 on line from 5 to 2).

18. The examiner maintains that the normalized second gain (the signal used by processor 2 on line from 5 to 2) is achieved by normalizing for position (6) residual noise (signal from 4).

19. The examiner disagrees with applicant's arguments that only one signal is used to produce the sound output of claim 15. An ideal model of the physical path is clearly found in signal processor 2.

Conclusion

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the


shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas Suthers whose telephone number is (571)272-0563. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571)272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

djs 


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